

ABSTRACT

Techniques to reduce the amount of registration required by a mobile station in a wireless communication system, especially if the registration zones are defined to be small areas. In one scheme, a mobile station registers (e.g., at RR-level) with a network entity (e.g., a base station) each time it enters a new registration zone, which can correspond to an R-TMSI zone defined by GSM MC-MAP. The mobile station maintains a timer for each zone with which it has already registered but has since left. If the mobile station leaves a particular zone for a period longer than a time-out period, the registration with that zone times out, and the mobile station re-registers with that zone whenever it re-enters the zone. The mobile station may implement zone-based, timer-based, implicit, traffic channel RR, and some other registrations, or a combination thereof. Parameters to facilitate registration may be defined by a base station.